U.S. AMLR Program and National Science Foundation

2011-2012 Weekly Field Reports Copacabana, King George Island

Volume 1 October 11, 2011

Camp Activities:

We arrived in Admiralty Bay, King George Island, on Tuesday morning, 11 October 2011, on board the ARSV Laurence M Gould. Due to minimal surf & very little ice berm on the beach in front of Copa, we could land close to the hut, resulting in a much easier & faster offload. Two of our Copa team went ashore in one of the first zodiacs to start opening up the hut & preparing things for the coming loads of supplies & food, while the other 2 stayed on board to oversee. There was moderate snow around the hut & the penguin colonies (~2-4 feet), but the Poles had cleared off the decks a few days earlier, to facilitate the opening. Three Poles met us at the hut soon after we arrived & helped with more shoveling to access the fish boxes in back & clear an area by the storeroom in front. The LMG Electronic Tech & helper (Kevin & Eddie) came ashore to begin turning on the power system, getting the wind generator up & running, setting up the radios & Iridium phone, making sure the gas generators were running, & getting the computers hooked up & running. We had many hands helping with the shuttle of supplies from the ship to the hut and completed the offload and camp opening chores in a few hours. We were able to unpack & put much of the food away in the storeroom & freezers, and sent most of the empty cardboard boxes and shipping containers back to the ship for disposal/retrograde. We are immensely grateful to all who helped make this year's Copa opening a huge success: John Evans (our RPSC POC here in spirit), Eric Hutt (LMG MPC), LMG ET (Kevin), the MTs (Dan & Julia), the MST (Diane), "extra hand extraordinaire" (Eddie), Captain Joe & the crew of the LMG, & all the Palmer scientists & staff (too numerous to mention by name) - we couldn't have done it without you all!

Science report:

1. Penguins: Adélie & gentoo penguins were in pairs, occupying colonies, & building nests when we arrived, but no eggs were found when we did our first check on October 12th. Most of the colonies were clear of snow, with plenty of pebbles available for nest-building, but most had areas of snow of varying depths all around them. Everyone has selected all their penguin reproductive data collection sites throughout the colony & mapped their separate nest sites. Each person is responsible for 5-8 areas of 5 nests each of both species (Adélies & gentoos) and will follow all nests daily to collect reproductive success & nest attendance data. The reproductive studies involve banding both members of Adélie penguin pairs, but only one member of gentoo pairs, for a total of 200 Adélies & 100 gentoos banded at

100 nest sites per species. These pairs will be followed to provide data on daily nest attendance of these species during the incubation and chick brooding periods. Banded Adélie and gentoo penguins from the past 3 years will also be relocated to determine over-winter survival of the breeding population. In addition, all bands seen in the colonies from past years are recorded, both the returning known-age birds (banded as chicks) and the "old repro" birds (banded in previous years' reproductive studies).



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The former will be used to determine age-specific survival rates of known-aged penguins for each species.

The first Adélie penguin egg was seen on Friday, 21 October, about the same as last year, with one seen in a study nest the following day. The first gentoo penguin egg was found today, Sunday, 23 October, almost 2 weeks later than last year, which was much milder & snow-free. Banding started today, particularly for the female Adélie penguins that have laid an egg, as they will leave for their first foraging trip to sea soon after laying the 2nd egg, so we want to make sure to get them before they go.

- 2. Skuas: The first brown skua was seen at Copa on Tuesday, 18 October, with more showing up daily. As the skuas begin to arrive, we record the arrival dates of each member of a pair at each skua breeding territory, and any other birds they associate with or are on the territory. All of the territories in the ASPA are monitored regularly, at least once a week, with the ones around Copa checked daily.
- **3.** Seals: A few crabeater seals have been seen on the beach in the past 2 weeks, which is not a common occurrence at Copa. There is still a lot of ice in the inlets of the bay, which is most likely the reason we are seeing this pack-ice loving seal this year. A few fur, Weddell, leopard & elephant seals have also been seen, but haven't stayed around long.

Weekly Weather: Moderate to strong NNW winds on most days, often with rain or snow. Most of the winds have been around 20-30 knots, with the strongest winds gusting to near 50 knots. Temperatures have mostly been at or below freezing, with a few days a bit warmer (33-360 F), resulting in substantial melting of snow around the area.

Hut Improvements & Maintenance: The shelves & walls in the storeroom, pantry, & some of the other rooms, were wiped down with a bleach & water solution to control mold. The storeroom & pantry food items were also reorganized at the same time. We are still melting water in large pots in the hut and on the stove, but water is now also running in the kitchen sink from the large collection barrels outside due to the warm temperatures recently. Gutters for the water collection system will be put up as soon as we get a calm enough day to do it.

The 2011-12 Copa Field Team
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